



# The Changing Role of the Transport Facility Internal Audit in the Post-COVID Period

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## INTRODUCTION

In May 2020, the Russian Ministry of Economic Development presented a forecast of the country's socio-economic development for 2020–2023, according to which the country's economy will return to the pre-crisis level only in the first half of 2022. As a result of the ongoing vaccination campaign and as quarantine restrictions ease, the active phase of economic recovery should begin in the fourth quarter and continue into 2021.

During the COVID-19 pandemic, Russia's digital economy received an additional boost since many processes had to be switched to the online mode. Many enterprises have moved from the offline system of communicating with customers and contractors to the online one, services for the

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goods delivery have been actively launched, and the list of receiving state electronic services has expanded. At the same time, the general growth of Internet services' users has sharply increased the number of cybercrimes. In this regard, the issues of information security and the organization of the internal control system are of particular relevance. In this article, we will pay attention to the organization of the internal control and audit system.

The internal (control) environment is the atmosphere in the company and determines how the risk is perceived by the employees, and how they respond to it. The control environment sets the atmosphere of the organization, influencing the control creation of personnel. It is the basis for all other components of internal control, providing discipline and structure. The control environment factors include integrity, ethical values, management style, the system of authority delegation, as well as the processes of management and personnel development.

There are several approaches to assessing internal control: test procedures, the simplest mathematical models (a mathematical model that automatically correlates the costs of conducting control procedures with the costs of conducting them), analytical procedures (presented in this paper), and analytical models that characterize the effectiveness of all management systems.

The study deals with organizing internal control and audit of the transport enterprise on the example of JSC "Russian Railways," as the largest company of federal significance providing services for the transportation of passengers, cargo and cargo baggage in the conditions of the economy's post-market revival. It is important to note that the main impact of the pandemic was on value chains, their gap provokes a shortage of individual goods, as well as a sharp increase in prices for cargo transportation.

Internal control in JSC "Russian Railways" is a system that provides the necessary information to the management, analyses the activities and studies the features of the internal control system (ICS) in JSC "Russian Railways" in the digital form. Methodological features and principles of internal control of accounts receivable and payable were also identified, its reliability was assessed; a variant of the information and analytical support model for the ICS and an algorithm for its phased implementation were presented. Such a system will allow one to effectively manage the document flow and control procedures even in the event of new pandemics

and forced lockdowns with employees' transfer to remote work. The analysis is based on the requirements and needs of implementing the internal control procedure at the enterprises of JSC "Russian Railways."

## METHODOLOGY

A wide range of domestic and foreign scientists have made significant contributions to research on creating and constructing ICS at different times and from different points of view, including Abbott et al., 2016; Alhajri, 2017; Allegrini et al., 2011; Badara & Saidin, 2014; Bednarek, 2018; Dal Mas & Barac, 2018; Dikici et al., 2018; Lenz et al., 2017; Letkiewicz & Mandera, 2019; Obydiennova et al., 2018; Omolaye & Jacob, 2017; Tackie et al., 2016; Tarasova, 2021; Trotman & Duncan, 2018; Turetken et al., 2020; Wohlin, 2014.

The main strategy for minimizing, reducing and preventing economic risks includes implementing internal control activities. Besides the economic risks, one should also take into account the organizational risks, which can also be minimized now, in the post-crisis period, when it became clear how to organize the work of the enterprise during the pandemic. It is the control activity that is aimed at identifying risks at the early stages and ideally preventing such situations even before they occur. Emergencies can always happen since the economy is a changing process that is also amenable to external influences. In such cases, one cannot but control the internal environment. Besides the main ICS activities, to achieve all the strategic goals, changes should be monitored and corrective actions taken at the right time. Such actions are designed to ensure the profitable use of resources, and the total cost of these resources should not exceed the income received with their help. When implementing economic activities, it is necessary to constantly take into account that internal control is characterized as a dynamic process that, although it prevents abuse, needs to adapt to the ongoing changes. Today, the range of economic, political and social problems is much wider, so one has to constantly monitor the ICS, which will ensure compliance with the goal of the enterprise (making profit with minimal losses)—the goal of internal control (checking documentation and identifying inconsistencies)—the goal of the Standard (available resources)—the goal of the state (economic and social environment).

JSC "Russian Railways" applies general, working and specialized audit Standards:

1. The group of common standards includes the Code of Internal Ethics for Auditors, the Regulation on Internal Control and the Training Standard, which now reflects the possibility to work remotely during the pandemic under the legal requirements.
2. The group of Working Standards includes Planning Standards, Audit Performance Standards, and Reporting Standards.
3. The group of specialized standards includes Standards of activities and Standards in certain areas of internal audit.

JSC “Russian Railways” uses its internal control system, because the management is focused on a Strategic Development Program. Under Article 295 of the Russian Civil Code, the property owner exercises control over the company’s property use and safety. JSC “Russian Railways” considers implementing the internal control procedure to be a mandatory activity system.

The internal control procedures applied in JSC “Russian Railways” and its subsidiaries are divided into preliminary and subsequent ones. Preliminary internal control procedures are aimed at preventing errors and violations of the established activity order (monitoring the actual availability and condition of objects, authorization of transactions and operations, etc.). Subsequent internal control procedures are aimed at identifying errors and violations of the established procedure (reconciliation, supervision, etc.).

JSC “Russian Railways” applies such internal control procedures as confirming compliance between objects (documents) or their compliance with the established requirements; authorizing the operations which confirm their commission’s legitimacy; reconciling data; controlling the objects’ actual presence and condition; assessing if the goals and indicators are achieved; controlling the procedures related to information processing and information systems.

We present the internal control stages implemented by JSC “Russian Railways” under the internal corporate standards in Table 13.1.

Let us consider the key areas of internal control in JSC “Russian Railways.” We will present internal control under the JSC “Russian Railways” corporate standards. ICS is based on operational audits, which is a chain of procedures. Operational audits include risks of business processes, internal control procedures, as well as detected violations and internal control shortcomings. These processes include analyzing regulatory documents in JSC “Russian Railways” areas of activity, as well as the

**Table 13.1** Internal control stages implemented by JSC “Russian Railways”

<i>Process steps</i>			
<i>Planning</i>	<i>Preparing for the audit</i>	<i>Conducting an audit</i>	<i>Registering verification results</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<i>Components</i>			
Draft internal control and audit plan (proposals)	Verification program, work programs	Register of identified violations, shortcomings, and risks	Documenting control results and audit procedures (references, local reports, audit report)
Internal control and audit plan Inspections schedule	Orders and regulations Individual task	Verification report	Developing a plan of measures to eliminate violations

*Source* Created by the authors

violations, risks, and business processes. This allows creating a risk register where those responsible for control are indicated. In turn, creating the register entails developing a plan of measures for monitoring and systematizing previous inspections, creating a unified control and audit model. The above-mentioned detection of violations and shortcomings of the system entails the recommendations based on the results of inspections aimed at eliminating errors, as well as proposals for strengthening control procedures in certain areas. Based on the results of a well-coordinated audit, we can achieve the following results: audit materials (classifier of identified violations, risks, shortcomings); register of business processes’ risk zones (action plan to eliminate violations, intensifying control procedures); monitoring report on how the measures are implemented. As a result, all the work allows us to update the internal audit and control model.

## RESULTS

JSC “Russian Railways” internal audit and risk management systems in the field of accounting, reporting, and tax accounting are subject to the audit organizations evaluating their effectiveness. They include the

Internal Audit Center “Zheldoraudit” and the Center for the Development of Risk Management and Outsourcing, as well as by tax authorities in connection with JSC “Russian Railways” transiting from 01.01.2019 to tax control in the form of tax monitoring. For this purpose, as well as to establish a unified procedure for documenting the internal control procedures performed and their results, the following documents have been developed and approved:

- Regulation on the Accounting and Tax risk management system in JSC “Russian Railways” dated 11.12.2017 No. CBS-63;
- Regulation on the Internal Accounting Control System in JSC “Russian Railways” dated 11.12.2017 No. CBS-64;
- The concept of a unified system of internal control procedures in accounting and tax accounting and reporting dated 02.10.2017 No. CBS-65.

We will also consider each stage of the proposed model of information and analytical support step by step.

The employees of the Volga Infrastructure Directorate (PrivDI) railcar companies were interviewed and then completed the test of the ICS reliability assessment methodology. JSC “Russian Railways” has a ready-made test form that consists of 26 questions in four sections: control environment, accounting system, tax accounting system, and controls. We decided to refine this model and introduce an additional fifteen indicators in the sections “risk assessment process” and “control actions” to more accurately and effectively assess the ICS reliability.

As a result the following data of test processing were obtained:

- Operational car depot Astrakhan—28
- Operational car depot Gorkiy—28
- Operational car depot Anisovka—27
- Operational car depot Atkarsk—29.

These results allow us to conclude that, in general, the internal control system is evaluated quite highly. It should be noted that the lowest points for all four car depots were awarded to the positions “Monitoring changes in the legal framework for accounting,” “Atypical operations control,” and “Monitoring changes in the legal framework for tax accounting.”

Thus, this methodology and its additions let us quickly monitor the current state of the ICS, and can also act as feedback between accounting employees and the internal control system. We consider it appropriate to introduce this method of receiving feedback and evaluating the work of the ICS. Today, this method is implemented only in the Atkarsk car depot. The survey should be conducted once every three months.

We should also determine the percentage estimate of the actual ICS at the PrivDI enterprises' reliability. To do this, you need to divide the final test scores by the maximum possible number of points. We will perform the calculation using the formula:

$$W = \frac{s_1 + s_2}{(73 + 30)} * 100\% \quad (13.1)$$

where  $W$  is the reliability value of the current ICS, in %;  
 $S_1$ ,  $S_2$ —the number of points on the internal control system tests, respectively, according to the current methodology and its additional part.

The results of the calculations are the following:

Reliability of the existing ICS at PrivDI enterprises, %:

Operational car depot Astrakhan—93

Operational car depot Gorkiy—91

Operational car depot Anisovka—87

Operational car depot Atkarsk—92.

The next stage of making the conclusion about the ICS reliability implies using the following scale:

1. From 81 to 100%—very high degree of reliability;
2. From 61 to 80%—high degree of reliability;
3. From 41 to 60%—the average degree of reliability;
4. From 21 to 40%—low degree of reliability;
5. 0 to 20%—the degree of reliability is not determined.

If we take the current situation with the internal control reliability at PrivDI enterprises, we can say that it is “very high.” We can also note that in this case, the operational car depot Anisovka has the lowest reliability value (87%) compared to other PrivDI car depots. This means that PrivDI has to pay attention to some shortcomings and adjust its current activities.

To do this one has to analyze the answers again, identify the questions, and conduct this questionnaire that will show the dynamics of improving the ICS.

The final stage of considering this methodology will imply determining the risk value. We can calculate it using the following formula:

$$Ir = 100\% - W \quad (13.2)$$

where  $Ir$  is the risk value of the internal control system, %.

According to the calculation results, the values of the ICS risk for the considered car depots are the following:

1. Operational car depot Astrakhan—7%;
2. Operational car depot Gorky—9%;
3. Operational car depot Anisovka—13%;
4. Atkarsk car depot—8%.

Then the results obtained should be evaluated qualitatively by the internal control risk scale of the internal control system.

1. From 80 to 100%—very high risk;
2. 60 to 79%—high risk;
3. 40 to 59%—average risk;
4. 20 to 39%—low risk;
5. From 0 to 19%—very low risk.

In this case, we define the risk of internal control as “very low.” The final data obtained during the assessment allow us to conclude the ICS reliability and its effectiveness. One can make a list of recommendations for improving the internal control mechanism at the enterprises of the PrivDI wagon service.

Besides the obtained qualitative reliability assessment, we can add an expert assessment of the ICS reliability dynamics in the form of a corresponding correction factor—the dynamics coefficient, for calculating which we offer the author’s approach:

1. All processes at the enterprises of the PrivDI car service are ranked and the most priority from the point of view of the internal control organization are selected;



2. The implementation of all risks and the distribution of all losses received for all processes are analyzed based on the losses belonging to a specific process;
3. We estimate the share of risk events for the selected processes in the total number of risk events for all processes, i.e., for example, the number of cases of risk implementation for the selected processes in the total number of risk events for all processes, and also perform a similar analysis in monetary terms (in roubles);
4. If the received share in the quantitative equivalent is not less than 80%, and is not less than 70% in the monetary equivalent, then we assume that the ranking processes quality in terms of risks and, accordingly, priorities in terms of internal control is high. Otherwise, we make adjustments to the method of selecting processes;
5. Subject to the high-quality process ranking, as well as taking into account the growing qualitative assessment of the PrivDI car service ICS reliability, the following condition has to be met:

$$\Delta S = S^{p^2} - S^{p^1} > 0 \quad (13.3)$$

where  $\Delta S$  is the score assessment dynamics of the PrivDI car service enterprises ICS for the period (usually a year), measured in points;

$S^{p^1}$ ,  $S^{p^2}$  – the value in the points of assessing the ICS reliability in the initial period  $p^1$  and subsequent  $p^2$ .

The correction factor ( $CF$ ) is 5 points, i.e.,  $CF = 5$ .

The proposed indicator is experimental requiring further development and testing. At the same time, one cannot but mention its practical value which lies in the ability to track the ICS development.

## CONCLUSIONS

The developing practice of internal control challenges Russian science to carry out comprehensive scientific and practical research that can take into account numerous significant aspects of internal control in managing an organization. Effective work of organizations can be achieved through effective internal control, which can combine the internal environment, the accounting system, and controls aimed at creating reliable accounting (financial) statements. The risk-based model is very flexible and adapts to changes, as well as new risks.

It is known that today no organization can do without a well-functioning IT system: most operations are performed through IT, electronic document management, electronic signatures appear, and enterprises strive to replace paper media with electronic ones. This solution has certain disadvantages (a possible sudden power outage, a computer or information storage system breakdown, a human factor—at some point companies can lack a specialist with the appropriate qualifications), but at the same time, despite such risks, the IT sector occupies a leading position in many areas, both management and the main working mechanism. JSC “Russian Railways” is no exception. In this case, we propose to consider the model of the COBIT (Control Objects for Information and Related Technology) Standard (hereinafter—the COBIT Standard). This standard is a set of specific rules and techniques that allow you to maximize the benefits of using information systems in implementing internal control. It should be noted that the COBIT Standard cannot be implemented independently in the practice of JSC “Russian Railways”; when using and implementing this Standard in the production process, it has to be selectively introduced into the current ICS. Let us consider what parts of the COBIT Standard can be applied at the PrivDI car service enterprises. To do this, we will consider the COBIT System principles step by step.

The first principle of the COBIT System is to meet the stakeholders’ needs. In our case, it is the balance between accounts receivable and accounts payable that makes the value for the interested parties, as well as the value for the normal stable operation of the PrivDI wagon service enterprises. As noted earlier, this Standard is quite impersonal and universal, so each company can adapt it to its needs. It should be noted that this principle is implemented in the internal control procedures of JSC “Russian Railways,” since the internal control of JSC “Russian Railways” has its requests for internal control, has its performance standards, and has a clear management structure. The second principle is a comprehensive view of the enterprise: Russian Railways generally provides both comprehensive information and a more detailed one—it all depends on the purpose. The third principle of the COBIT System deals with seven types of factors influencing the control system at the enterprise: organizational structure (used in JSC “Russian Railways”), services, infrastructure and offers (used in JSC “Russian Railways”), culture, ethics, behavior (also used in JSC “Russian Railways”). We would like to draw the readers’ attention to the remaining four types of factors, such as:

1. Principles, policies, and approaches;
2. Processes;
3. Information;
4. Personnel, skills, and competencies.

In our opinion, these factors are the main focus of JSC “Russian Railways,” as they are the most changeable from the social, political, and economic points of view, and also require not only constant monitoring and attention but also changes, innovations, and improvements.

We can say that the principles discussed above, in general, correspond to the current work of JSC “Russian Railways” (also compatible with the COSO model). But with a more detailed study of the material, we understand that the fourth principle for consideration is completely incompatible with the COSO ethics, and does not apply to the current work of JSC “Russian Railways,” which is why any implementation requires a deep check and analysis of whether the innovation is applicable in practice. We are talking about the principle of leadership and management separation. The COBIT standard draws a clear line between these concepts: according to the Standard, management is required to provide confidence in the company achieving its goals by determining the line of development and making appropriate decisions, monitoring performance, assessing the needs of stakeholders, the degree of how the obligations and meeting requirements are fulfilled. In turn, the role of management under this Standard is to perform and monitor the change in the company’s activities following the specified line. The COBIT standard deals with 37 processes divided between management and administration. We consider separating the concepts of “management” and “administration” irrelevant in the current situation at JSC “Russian Railways.” When making a decision, the administration should be guided by the reports of the management apparatus, as well as pay attention to the whole mechanism of JSC “Russian Railways.” There are many nuances and features driven by certain interests (sometimes it can be getting maximum profit, and sometimes solving current problems). The needs of the parties are influenced by such driving forces as, for example, introducing new technologies, improving personnel skills, changing legislation, etc. It is on the needs and current situation that the goals of the enterprise should be based, and, therefore, the entire system, including the ICS, should be flexible and timely.

The main task is to unify and standardize control procedures, as well as synthesize them into business processes. This method is very flexible, since having new ideas we can also try to implement them using the following scheme: one can just replace some graphs with new ones, and we get a new improvement option, or rather a new model, using which we can get our results of improving the ICS and test them.

We can conclude that this scheme structures the management process, transforming the current big goals into clear goals not only for each department but also for each accountant as a whole. In this case, information technologies act as a basis for continuously monitoring the existing changes, and raising the accountant's awareness (or that of young professionals, which is also very important), as well as providing the necessary basis for conducting internal control. This indicates the direct impact of IT technologies on the accountant's daily activities, as well as on the entire ICS. Accounting and control automation can become the main tool for reducing the time and costs of conducting control procedures. The number of similar operations, the volume of the nomenclature list, the responsibility and the lack of qualified personnel—all this requires significant labor costs. Saving time is an important factor both in suspending the activities due to the pandemic, but it will also allow specialists to engage in more intellectual work in the post-pandemic period and pay attention to those points in the work that require human attention and knowledge.

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